WHAT IS CLAIMED IS:

1. A method of producing exopolysaccharides comprising:

culturing a *Shingomonas* bacteria in a fermentation
5 broth for a time and temperature effective for providing
a sphingan exopolysaccharide in a slime form; and

recovering the sphingan exopolysaccharide from the
fermentation broth.

2. A method according to claim 1 wherein the
10 *Sphingomonas* bacteria is selected from the group
consisting of ATCC PTA-3487, ATCC PTA-3486, ATCC PTA-
3485, ATCC PTA-3488, and mixtures thereof.

3. A method according to claim 1 wherein
fermentation is conducted from about 48 to about 96 hours
15 at a temperature of about 25˚C to about 35˚C.

4. A method according to claim 1 wherein the
sphingan exopolysaccharide is recovered with alcohol
precipitation.

5. A method according to claim 4 wherein from
20 about 1 to about 1.5 volumes of alcohol are added to the
fermentation broth.

6. A method of producing exopolysaccharides
comprising:

culturing a *Shingomonas* bacteria selected from the
25 group consisting of ATCC PTA-3487, ATCC PTA-3486, ATCC
PTA-3485, ATCC PTA-3488, and mixtures thereof in a
fermentation broth for a time and temperature effective
for providing a sphingan exopolysaccharide in a slime
form; and
30 recovering the sphingan exopolysaccharide from the
fermentation broth with an alcohol precipitation,

wherein the method is effective for providing at least about 10 grams sphingan exopolysaccharide per liter of fermentation broth.

7.   A method according to claim 6 wherein
5   fermentation is conducted from about 48 to about 96 hours at a temperature of about 25°C to about 35°C.

8.   A method according to claim 6 wherein from about 1 to about 1.5 volumes of alcohol are added to the fermentation broth.
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9.   A fermentation broth comprising from about 10 to about 20 grams of sphingan exopolysaccharide per liter of broth, wherein the sphingan exopolysaccharide is in a slime form.

15   10.   A fermentation broth according to claim 9 wherein the fermentation broth has a viscosity of from about 15,000 to about 30,000 cp.

11.   An exopolysaccharide produced by a process comprising:
20   culturing a *Shingomonas* bacteria selected from the group consisting of ATCC PTA-3487, ATCC PTA-3486, ATCC PTA-3485, ATCC PTA-3488, and mixtures thereof in a fermentation broth for a time and temperature effective for providing a sphingan exopolysaccharide in a slime
25   form; and
recovering the sphingan exopolysaccharide from the fermentation broth with an alcohol precipitation, wherein the method is effective for providing at least about 10 grams of sphingan exopolysaccharide per
30   liter of broth.

12. An exopolysaccharide according to claim 11 wherein fermentation is conducted from about 48 to about 96 hours at a temperature of about 25°C to about 35°C.
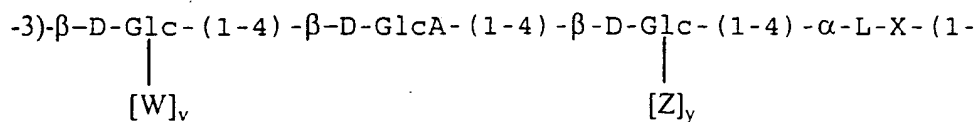
13. An exopolysaccharide according to claim 11 wherein from about 1 to about 1.5 volumes of alcohol are added to the fermentation broth.

14. A bacteria derived from a strain of *Sphingomonas* selected from the group consisting of ATCC PTA-3487, ATCC PTA-3486, ATCC PTA-3485, ATCC PTA-3488, and mixtures thereof.

15. An exopolysaccharide in a slime form, wherein the exopolysaccharide is produced by a *Sphingomonas* bacteria.

16. An exopolysaccharide in a slime form according to claim 15 wherein the exopolysaccharide in slime form is produced by *Sphingomonas* selected from the group consisting of ATCC PTA-3487, ATCC PTA-3486, ATCC PTA-3485, ATCC PTA-3488, and mixtures thereof.
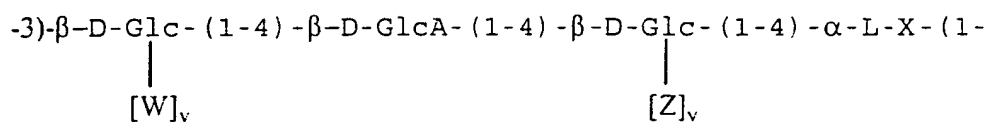
17. An exopolysaccharide in a slime form according to claim 15 wherein the exopolysaccharide in slime form is a sphingan exopolysaccharide having the general formula

$$-3)-\beta-D-Glc-(1-4)-\beta-D-GlcA-(1-4)-\beta-D-Glc-(1-4)-\alpha-L-X-(1-$$
$$[W]_v \qquad\qquad\qquad\qquad\qquad [Z]_y$$

wherein Glc is glucose, GlcA is glucuronic acid or 2-deoxy-glucuronic acid, Rha is rhamnose, Man is mannose, X is Rha or Man, Z is attached to Glc residue 2 and is α-L-Rha-(1-4)-α-L-Rha, α-L-Man or α-L-Rha, W is attached to

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Glc residue number 1 and is β-D-Glc-(1-6)-α-D-Glc, β-D-Glc-(1-6)-β-D-Glc or α-L-Rha, subscripts v and y are 0, 0.33, 0.5, 0.67 or 1.

18. An exopolysaccharide in a slime form having the general formula

$$-3)-\beta-D-Glc-(1-4)-\beta-D-GlcA-(1-4)-\beta-D-Glc-(1-4)-\alpha-L-X-(1-$$
$$[W]_v \qquad\qquad\qquad [Z]_y$$

wherein Glc is glucose, GlcA is glucuronic acid or 2-deoxy-glucuronic acid, Rha is rhamnose, Man is mannose, X is Rha or Man, Z is attached to Glc residue 2 and is α-L-Rha-(1-4)-α-L-Rha, α-L-Man or α-L-Rha, W is attached to Glc residue number 1 and is β-D-Glc-(1-6)-α-D-Glc, β-D-Glc-(1-6)-β-D-Glc or α-L-Rha, subscripts v and y are 0, 0.33, 0.5, 0.67 or 1.
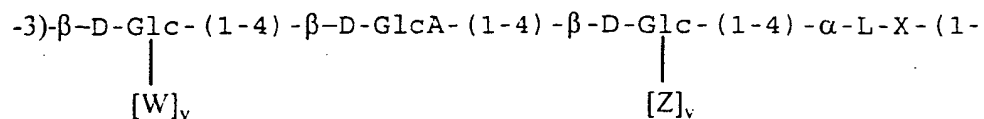
19. An exopolysaccharide in a slime form according to claim 18 wherein the exopolysaccharide in slime form is produced by *Sphingomonas* selected from the group consisting of ATCC PTA-3487, ATCC PTA-3486, ATCC PTA-3485, ATCC PTA-3488, and mixtures thereof.

20. An exopolysaccharide in a slime form produced by a *Sphingomonas* bacteria, wherein the *Sphingomonas* bacteria are grown in a submerged, aerated liquid culture, and wherein a concentration of dissolved oxygen exceeds about 5% of saturation of water after 24 hours of culturing.

21. An exopolysaccharide in a slime form according to claim 20 wherein the exopolysaccharide in slime form is produced by *Sphingomonas* selected from the group

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consisting of ATCC PTA-3487, ATCC PTA-3486, ATCC PTA-3485, ATCC PTA-3488, and mixtures thereof.

22.   An exopolysaccharide in a slime form according to claim 21 wherein the exopolysaccharide in slime form is a sphingan exopolysaccharide having the general formula

-3)-β—D-Glc-(1-4)-β-D-GlcA-(1-4)-β-D-Glc-(1-4)-α-L-X-(1-
$\quad\quad\quad\;$|$\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\;$|
$\quad\quad\quad$[W]$_v$$\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad$[Z]$_y$

wherein Glc is glucose, GlcA is glucuronic acid or 2-deoxy-glucuronic acid, Rha is rhamnose, Man is mannose, X is Rha or Man, Z is attached to Glc residue 2 and is α-L-Rha-(1-4)-α-L-Rha, α-L-Man or α-L-Rha, W is attached to Glc residue number 1 and is β-D-Glc-(1-6)-α-D-Glc, β-D-Glc-(1-6)-β-D-Glc or α-L-Rha, subscripts v and y are 0, 0.33, 0.5, 0.67 or 1.